Civic Hacking and our Political Future

An interview with Audrey Tang

Emilie FRENKIEL

Can fresh air come from young democracies like Taiwan and civic-minded hacktivists like Audrey Tang? This interview shows that both help renew democratic practices in providing sophisticated collaborative, participatory and deliberative tools.

Audrey Tang is a young Taiwanese "open source civic hacker", a very talented coder whose programmatic works are open for everybody to use and who has worked in the voluntary sector for the past two years, after an early retirement from corporate activities. Hackers use creative, unforeseen solutions to solve interesting problems. **Hacking** first means using tools to make one's own instruments. The word implies creating tools whenever they are needed but also hacking these tools themselves to keep on improving and refining them. Audrey Tang, among other projects, is an active member of **g0v**, a group of hackers devoting their energy and programming skills to provide Taiwanese activists, voters but also political leaders, among others, with constantly refined sets of tools allowing them to inform themselves, mobilize, participate in decision-making and deliberate.

Answering the questions of Emilie Frenkiel, Audrey Tang talks about the influences of political hacktivism as an open source, open data activity; she discusses the involvement of civic hackers in social protests like the Sunflower movement (2014) and the occupation of the Parliament in Taiwan (2014), and explains how civic hackers create new participatory tools that help lazy people get into real political participation and action. Finally she discusses the structure of the hacker community, it transnational nature and the concept of 'radical transparency" that prevails in it.

Initial sources of inspiration

Books&Ideas: Who are the models that inspired your open source, open data, crowdsourcing ethics? Who has inspired you in your thinking and usage of the World Wide Web?

Audrey Tang: What were my inspirations? Where are my ethics from? In 1994, when the World Wide Web, the Internet was invented, it was through the volition of a lot of telecom operators. It was not regulated by any governmental body. It is basically a set of protocols, that is, agreements between telecom operators on how to switch their data around so that anybody can reach anybody through the internet. This is the reason why it's called the internet: inter-network. The inter-network Task Force is unique in that it does not vote and it does not have a parliamentary representative system. All the stakeholders, all the operators just come to meet (either online or physically) consensus. They would raise some ideas and when these ideas are good, more people agree. If these ideas are not so good, better ideas will emerge. There is a saying by David Clark: "we reject kings, presidents and voting, we believe in rough consensus and running code". "Rough" does not mean violent here. It means coarse-grained; that is people agree on a larger vision but not necessarily on the fine details. People implement whatever they think is good for their vision, and people revise their coherent agreements more and more. So we are not after a perfect agreement but after rough consensus so that we know that we are going roughly to the same space. It is this philosophy that has impacted me the most in the advent of the World Wide Web. It's a very long tradition of Internet engineers.

Books&Ideas: For twenty years, scholars and thinkers have tried to capture and refine this philosophy. Are some of them more to the point to your mind?

Audrey Tang: To understand open source in particular, there is a book entitled *Open Sources: Voices from the Open Source Revolution*. One of the early thinkers is Eric S. Raymond with the Cathedral and the Bazaar (O'Reilly Media, 1999) and the follow-ups are very much worth reading. He calls himself an anthropologist living with the geeks. Another in-the-field anthropologist is Larry Wall, the creator of the Pearl language, giving annual addresses called "the State of the Onion" to the Pearl people. He tries to synthesize as much as possible music, sociology, art, linguistic, and so on

into his annual talk. It gives a snapshot of his zeitgeist. Aside from this, there are hackers themselves like Linus Torvalds, the creator of Linux, who has worked with Manuel Castells, the author of the trilogy *Information Age*, on a book entitled the *Hacker Ethics* (Martin Secker & Warburg Ltd, 2001), which references all the thoughts around the Internet studies, including Pekka Himanen, a Finnish scholar also working on this field. These are my earliest readings and they remain the most accessible, compared to very specialized readings.

Civic hackers & on-the-street protests

Books&Ideas: How did you get involved in, and how did your civic hacking contribute to social movements such as the Sunflower movement and the occupation of the Parliament in Taiwan and also the Occupy Central in Hong Kong or the Umbrella movement in 2014?

Audrey Tang: How did I become involved, and more broadly how do civic hackers become involved in on-the-street protests? The Cable Power and Radio CPR team is a bunch of people who have been working in Taiwan on major open source conferences running from 1,000 to 5,000 people annually. In recent years, registration has been free and taken about 60 seconds. It is extremely popular so the CPR team, they wanted to provide a seamless wire to all the participants to the conferences and also all the equipment that they may need. So they are very experienced in serving thousands of people – obviously not half a million – but it is a start. About ten days before the Sunflower movement, a contributor on g0v asked the people of g0v to support the internet connexion of the anti-nuclear plant parade and because the weather was really bad on that day, March the 8th, we used spare band width to do live broadcasting of whatever was happening on stage. And even though it was unannounced, we had more people in front of the live broadcasting than in front of the stage because of the weather. This was all thanks to the CPR team, joining the larger g0v brand, which strives to have a dialogue with the civic media and the Hacktivists. As a result, ten days later the same equipment and ideas were mobilized for the events the whole country focused on, that is the occupation of the Parliamentary building. This is what the scholar Clay Shirky calls "situational application", as we had not prepared any equipment beforehand but we reacted, coded very quickly in response to

the demand from the field in an iteration circle that is five or ten minutes. A new situation appears, and new tools appear to address this situation. So over the 21 days of Occupy, we refined all the practices of all the projects of g0v: some did not work but the best practices that we knew that would work were practiced again and got more evolved through the process. That's what we call "collaboration aid", a decentralized collaboration, which then got adopted by the Hong Kong Occupiers for their logistics, their live streaming and their coordination.

Books&Ideas: As you explained, technologically speaking, there are similarities between the two movements (the Sunflower movement & the occupation of Parliament in Taiwan), but is the content you helped provide through technology similar in both cases?

Audrey Tang: Although the live-streaming is similar, because of geography and this is all geography related, the content of the movements were different. The parliamentary building was very difficult to attack, which explains why occupiers kept to it for many days. And it was surrounded by three streets. The people advocating Taiwan independence were on one side, people who were traditionally left-wing were on another side and environmentalists were on the third side. Any topic you wanted to talk about, you could find a bunch of people who could share ideas and talk under a camera, being live-casted to hundreds of thousands of people or in transcripts. They could deliberate in the street. They could form a rough consensus. Even with differing ideologies we could sit down in the same space, the temporary space created by Occupy and talk. This is very important because it shows, not a convergence, but a coherence among all participants and they resonated with other good ideas that spread from other deliberation sites.

What we could see in Hong Kong was that the movement was in a state of emergency. They also innovated but mostly on ways to defend against the mob and against the police or to get their cause out and as viral as possible. So basically they were competing or collaborating towards their survival and the spreading of their ideas. Occupiers were volatile. There were no guaranteed residents and it was more guerrilla-like, so to speak. Therefore, even though we have the same logistics, and

transcripts and so on, it showed very different content and their difference is also reflected in the deliberation quality.

Books&Ideas: These two movements have often been described as non-violent, "civilized" and "polite" (*wenming*, *suzhi da*). Foreign analysts and press insisted on the cleanliness of the protesters, etc. Would you interpret it as a cultural feature or a result of the live-streaming and the fact that everyone was watching and that the movement is taking place simultaneously offline and online?

Audrey Tang: Your question is about the radical non-violence of the two movements, whether it is informed by the format of its being videocamed all the time? Of course it is. We have a lot of other political movements and even within the Sunflower movements, there was the Occupy the administration and we could witness a radically different behaviour when protesters and the police are being watched and when they are not. When they are not, things tend to escalate while when they are watched by thousands or hundreds of thousands of people, things tend to calm down a little and be more civilized. This is one part of the story. The other part is that because we know that this is being transcribed, this is being archived as it happens. We are literally writing history. This puts a more global, that is a higher perspective on top of each protester. We are not only after some material gain or some concessions but we are after performing not an ideal but a better democracy, we think, than what has been practiced so far. So live performance is also part of the issue.

Books&Ideas: Would you say that it is a conscious choice, that everyone participating to the offline movement is aware of this effort to perform democracy better, trying to improve the whole democratic experience worldwide? It's been part of the Indignados in Spain and Occupy movements in New York City and so on. How many people are actually aware of this worldwide movement while protesting?

Audrey Tang: How many people are aware that they are demonstrating, in the original meaning of the term, showing a living proof? A few months before the Sunflower movement, out of curiosity and habit, I read and translated some key segments from the *Networks of Outrage and Hope*, a book by Manuel Castells studying the dynamics behind all the Occupy movements, the Arab Spring and all the

technology-mediated street movements. In it, Castells specifically says that there needs to be theory, reflection, but they need to be generated in the field. The more in the field they are, the more useful they are to the participants. We did not preach, train or coach anybody to perform but the theories were developed very rapidly and quickly on Facebook, in the media, social media especially during the Occupy. Every day, we could see new discourse on the subject reflecting on the importance of geopolitical options, what it signifies by the anthropologists, political scientists, sociologists. And every day, the students woke up and first read the media: mainstream media and selected speeches by the authors, writers to the Occupy area to perform their analyses on the performance. So it is an iterative process. Each day, we look at the previous day and wonder what we have done differently and how it ripples out differently. By this continuous circle of iteration, people become gradually aware of what they are doing or at least what other people think they are doing. It also gave a sense of purpose on the Occupy site that is more exploratory than survival.

From Clicktivism to hacktivism, or how to get people involved

Books&Ideas: Your various projects, especially g0v seem to be animated by this idea that you can contribute in finding something practical that will help engage lazy people into real participation and action. Can you explain what that means to you exactly and the sort of projects you have opted for in that perspective?

Audrey Tang: How do we manage to turn, sometimes successfully, clicktivism - click, like and share – into hacktivism, which is agenda-setting. Larry Wall, the on-the-field anthropologist, said that laziness is the prime virtue of a programmer, in the sense that if you are diligent you keep the original way of doing things and keep doing it. But if you are lazy, by saving time, you think of a way to automate some of the work away. Once you think of a way to automate some of the work away, you also think of a way to improve it. You shift to a different gear instead of just being diligent. So laziness for us is a virtue and also, it means to be inspired to do better things. Clicking, liking and sharing is absolutely essential because it takes maybe 5 or 10 seconds and makes people feel good. The psychological "instant gratification" is paramount. It is what makes people put captions on cat pictures and spread them over the world. The thing is that we need to harness what we call the cognitive surplus.

During these ten seconds, we could make a cat picture or we can do an optical character recognition; that is for instance to look at an image of numbers and to type the numbers in as I see them on the screen. By that, I donate 5 seconds of my brain, of my cognitive time. And I see instant reward because I can see the progress bar moving and I know there is a sense of purpose because there is a progress bar that I see moving. This is the campaign finance records, previously only available in paper forms and now that it's been digitized, it is going to change the political dynamics. Or this is a Taiwanese-French dictionary, an old paper dictionary that we have no digital copy of. And we are digitizing it so that others, children or people who want to learn Taiwanese or French can benefit from it. So it is altruism, meaning, purpose. But the idea is that these five or ten seconds of spare time motivate people to be more energized rather than just pleased. And once these people are energized, some of them then can take on to create more and do more questions and answers, write more opinions, contribute their viewpoints and analyses and finally deliberate and do agenda-setting. This is a ladder and each step is very important but the most important thing is that it does not become a cliff.

Books&Ideas: To further illustrate what you are doing, could you explain one of your signature projects?

Audrey Tang: Let us focus on the 1985 movement. In that case, 1985 is not a year but a telephone number in the military. Any military personnel can dial this number to call for help or to appeal against undue treatment by superiors. This is a help line for soldiers in Taiwan. In August 2013, there was a concerted protest of a quarter of a million people on the street over the alleged murder of a soldier, called Hung Chung-chiu while training a few months before he's done with military duty. There was clearly bullying involved, but whether it was murder or torture, nobody knows because the CCTV cameras that they installed in all rooms in the military compounds report a crucial blank in the time between Hung Chung-chiu entered the building and died of dehydration. People were very indignant because maybe nothing happened and it was an accident. But whoever erased the tape doesn't want us to know. That's the crucial point. The military wanted it to be tried in military court which basically means that the outside gets no view, no publication of the full court transcript, no due process like in a civilian court, even though it is not wartime. The protesters were PPT

(a bulletin board system) people. You can think of them as Redditers. They were about 20 online friends, who had never met before offline. They met in a café and said we have to do something. They crowdsourced a protest. Most of them had never done any street protest before so they had to learn from scratch how to apply for a permit, prepare for the logistics: the food, the medical channels, water, the costs and so on. Everything was crowdsourced this way. After the successful protest, they left this document entitled "civic movement 101". Like "civic movement street protesting for dummies", literally. It's also released in an open source way so that more experienced protesters can contribute to it and then we would talk about not making use of wireless network at that protest. So people would join this Google doc and start discussing if we would introduce network access and what it would change if we did. If we had introduced network access, how we would have changed the protest. Between August and the Sunflower movement in March, there had been active discussion online and offline about this prototype and how to scale it. How we make the experience better for all the participants, for more participants?

Books&Ideas: Some of your projects are less about improving protests than improving government websites and public services. Can you explain this sort of activities?

Audrey Tang: I joined g0v two months after it started. It was launched by four hackers who registered the internet domain name g0v.tw because all government websites end with gov.tw. Registering this new domain means that, for example in the case of the Parliament, the website is ly.gov.tw: anyone who would change the o to 0 and browse ly.g0v.tw would be visiting the shadow parliament. It is using the exact same data as the parliament but it is far from friendly. Instead of PDF and Word files, there is now a tracking system for all the bills, which stage they are in, the starting address, who started it, the photo and timeline of the legislator who proposed it and actually texts done in two columns with green (changed) and red (deleted) colours for the changes to clearly appear. You can also browse through a particular section, bookmark it and spread it via social media so that they became "social objects". That is to say, one specific paragraph in a legislation bill becomes an object around which people could have a discussion. The g0v folks also did it with the national budget. And just last week, Taipei city adopted the same technology and engaged the

community by saying: "from now on, we will publish alongside our usual publication of the municipal budget, we will also publish a more readable version compatible with this work. Therefore, if you type budget.taipei in your browser, you can now see a beautiful bubble interactive tree map of the interactive guide to Taipei budget. Obviously, people in the UK and in other cities budget already did that, but we also published a report for people to say "I think this is too much, this section should be deleted" and also a discussion board around each individual item in the budget. So it increases massively the sense of participation and again I think it is visited by a million people right now.

Transnationality and Neutrality

Books&Ideas: This leads me to the transnationality, internationality of your locally-based diverse involvements. In the case you have just mentioned, we can sense the impact of the participatory budget designed in Puerto Alegre in Brazil. The experiment there was based on the idea that if you make complex decisions on budgeting more accessible (for many years these decisions were not transparent based on the assumption that people would not be able to understand, and that it was therefore not useful to make the information and decision-making transparent), people have the means and skills to actually take part in the decision-making in a rational, useful and relevant way. How would you describe the impact of the Brazilian way of thinking about budgeting in this undertaking in Taiwan? Is it a direct influence or a transnational rippling of that spirit?

Audrey Tang: How much transnational influence do we receive and how much do we give back to the international community? The informed part, the part based on the urge to open spending and open the visualization of the budget, differs from the original experiment in Puerto Alegre which I think is more about the decision. It is way down the pipeline. The informing part, the open spending project and also the transcription services that we use are done primarily by mySociety in the UK, where they have this very local level and as well as national-level tools via the populous collection of efforts based on 20 perhaps or 30 different countries where civic tech people share the components that can be re-used across different legislations and judiciary areas. The parliamentary part and law part of the digitization come from

code for Africa. They have this format called Akoma Ntoso, which is African. It is a way to make reading more transparent and structured, to put phases next to each line that the counsellors have spoken and so on and so forth. We took it from them. This discussion platform was done thanks to a lot of efforts by the German and Austrian Pirate Parties on liquid feedback, the New Zealanders did the Loomio project. In the Silicon Valley, there are also a lot of startups around this. There are projects by the Argentine team: Democracy OS and the Discourse Team in the Silicon Valley. We use and evaluate and play with those tools. This is the idea of situational application. For any situation in policy, we assemble a set of tools that we think would work better than before at least in this particular instance. Then we iterate and contribute back upstream. We call this "social interaction design", using these components. We contribute feedback, comments that we think would make components better. We contribute translations, but also experience so that tool-makers will improve their tools and if they don't, then we use new tools. So this is very organic process that is fundamentally transnational.

Books&Ideas: Neutrality is a notion you have used quite a lot. The tools you use are neutral. At the same time, they are strongly oriented by the philosophy that guided the very beginning of the World Wide Web. So for instance when you take part in the Legislator voting guide, it is supposed to be presenting facts in a neutral way, but it is also conveying normative values. Therefore, how do you conceive this ambiguity?

Audrey Tang: I will talk separately about the informing part and the decisional part. As to the inform part, there is what we call the value of radical transparency. Being neutral does not mean not taking action, which is often conservative. Being neutral means to remove asymmetries, that is non balances. And from a theoretical informational point of view, the powers, the policies, the legislators themselves convey much information to the citizens in the form of regulations, enactments and so on. But every four year, we convey maybe five bits of information on election day, picking from one candidate out of sixteen. It's just four pieces of information, it's not much. Therefore, there is a very large asymmetry from the download and the upload, so to speak. Therefore we think that whatever the legislator knows, and whatever the parties know ought to be made available to the general public so that they can independently verify their claims. When a legislator says that he has been voting

against his party line forever, we can look at the records in a minute and say 'No he has never done that'. It is important because otherwise we encourage bluffing and counterfactual statements and so on. Being neutral here is just saying that information should not flow in one direction but it should flow bi-directionally, or even in whichever directions and made generally available. This is the informing part of neutrality. As to the decisional part of neutrality is more subtle. We talked about using deliberation. This is what I call the "coherent blending process of people's volition", of what people want, what people think they need or people's ideas. It is just like in a blender. If you put a lot of different fruit in a blender, when you start blending it will start a fire. It's not only because of the friction, but because there are hot boundaries between these fruits. Imagine an apple and a banana. So what we do is add a sufficient amount of water, the neutrality, a neutral platform, a safe platform where it interacts with everything, but doesn't intrude upon anything. We also talk with specific cases. It's like slicing the apple into very small slices so that they blend better. Instead of discussing the entire constitution, we pick one aspect of it and deliberate on that aspect only so that people's focus can be more coherent and the blending could proceed more smoothly. Perhaps creating a smoothy or something.

Books&Ideas: You gave us some insight of the transnational hacking community, where hackers and activists can cherry pick whatever others have designed thanks to this open source philosophy. Everyone can really choose whatever is going to be relevant to their cause. Now can we size this hacking community? Can you share your insight into its divisions, into possible inner conflicts? It is transnational and at the same time it is locally based. There is a Chinese hacking community that we don't know much about. There are hackers working for terrorist purposes as well. What is your own take, your own way of seeing this community, as an insider?

Audrey Tang: What is the structure and dynamics of the hacker community? In popular media we see hackers like Julian Assange, Aron Schwartz, Edward Snowden that are self-identified as hackers by which they mean they use non traditional ways to effect change. But there are also hackers who breach information security or builders of infrastructure, like Linus Torvarlds who created the Linux operating system that is run in any Android phone or Bill Joy the BSD system that runs in any Apple phone. So whatever phone you have it is based on hackers' open source work. Among these

kinds of builders who are normally apolitical, only a very small fraction of it is overtly political. But because of the way the entire community works and is linked by the spirit of being open, the infrastructure hackers work allows civic hackers to freely use a remix of the others' design. This has been very aptly described by French philosophers Deleuze and Guattari in *Thousand Plateaux*, this idea of the rhizome. It is something that grows everywhere but is connected underground. And whenever there is a need it, for example in China or in Taiwan, in different soil, and a different thing may sprout. You can cut away some part of the rhizome but among the cutaway sprout the new branches can fork and it will grow more. It's organic and it is based on a very basic protocol that is rough consensus and running code so in this perspective, there is no division whatsoever. Every single hacker is a division and also whatever they try to communicate can be entirely different within an hour. This is the very fluid nature of the community that I can share with you.

Interview conducted by Emilie Frenkiel © **booksandideas.net,** 25 February 2016

For further reading:

Clay Shirky, How The Internet Will Change Government", Video Global TED, June 2012

Eric S. Raymond, *The Cathedral and the Bazaar*, O'Reilly Media, 1999

Manuel Castells, *Information Ag*e: *Economy, Society and Culture* (*The Rise of the Network Society* (1996), *The Power of Identity* (1997), and *End of Millennium* (1998)), Malden, MA; Oxford, UK: Blackwell

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Clay Shirky, *Here Comes Everybody: The Power of Organizing Without Organizations*, Penguin Press, 2008

Clay Shirky, *Cognitive Surplus: Creativity and Generosity in a Connected Age*, Penguin Press, 2010